

## Lect. Dr. Kanoksak Wattanachote

### Address

Faculty of ICT  
Mahidol University  
999 Puttamonthon Rd. Salaya  
Nakhon Pathom 73170  
Thailand

Tel: +66 2 441 0909  
Fax: +66 2 441 0808  
Email: kanoksak.wat@mahidol.ac.th

### Research Interests

- **Computer Vision:** Robot Vision, Image Processing, Point Cloud Analysis, Motion Analysis
- **Text Mining:** NLP, Speech Sentiment Analysis, Clinical Communication Analysis
- **Big Data Analytics:** AI, Large Language Model, Big Data Technology Leveraging
- **Multimedia Aspect Research:** 3D Point Cloud & Mesh Analysis, Sound Analysis
- **Cyber Security:** Phishing URL Detection, Deepfake Analysis + Detection

### Professional Experience

- **Assistant Professor**, Guangdong University of Foreign Studies (**GDUFS**), Guangzhou, Guangdong, China
- **Co-Investigator**, Project: The Role of Artificial Intelligence in Advancing Shared Decision-Making for Multidisciplinary Complex Restorative Dentistry Cases, in care of **Professor Dr. Siritwan Suebnukarn**, Faculty of Dentistry, Thammasat University, Thailand
- **Co-Investigator**, Project: Artificial Intelligence-Based CT Scan Image Assessment Combined with the Ramathibodi Appendicitis Score (**RAMA-AS**), in care of **Professor Dr. Chumpon Wilasrusmee**, Mahidol University, Thailand
- **Research Fellow**, Aging Healthcare Technology and Robot Vision, Computer Vision and Interactive Technology (**CVIT**) Laboratory, in the care of **Professor Chih-yang Lin**, Department of Mechanical Engineering, National Central University, Taoyuan, Taiwan (ROC)
- **Research Fellow**, Generative AI Technology, Multimedia Information Networking Laboratory (**MINELab**), in the care of **Professor Timothy K. Shih**, Department of Computer Science and Information Engineering, National Central University, Taoyuan, Taiwan (ROC)
- **Laboratory Supervisor Assistant and Research Fellow, Intelligent Health and Visual Computing (iHAVC)** Laboratory, in care of **Professor Gong Yongyi**, Guangdong University of Foreign Studies, Guangzhou, Guangdong, China
- **Lecturer and Faculty Member**, Graduate School of Business and Advanced Technology Management, Assumption University of Thailand (**ABAC**), Bangkok, Thailand
- **Postdoctoral and Research Fellow**, Web Identity Security (**WIS**) Laboratory, in care of **Professor Liu Wenyin**, School of Computer Science and Technology, Guangdong University of Technology (**GDUT**), Guangzhou, Guangdong, China
- **Ph.D. Candidate**, Image Processing, Computer Vision, and Game Application Technology, Multimedia Information Networking Laboratory (**MINELab**), Department of Computer Science and Information Engineering, National Central University, Taoyuan, Taiwan
- **Exchange Researcher and Research Fellow**, Networked Information Systems Laboratory (**NISLAB**), in care of **Professor Jin Qun**, Department of Human Informatics and Cognitive Sciences, Faculty of Human Sciences, Waseda University, Tokyo, Japan
- **Part-time Lecturer**, School of Science and Technology, University of the Thai Chamber of Commerce (**UTCC**), Thailand

- **Part-time Lecturer**, Sirindhorn International Institute of Technology (SIIT), Thammasat University, Thailand
- **Part-time Teacher**, Samsenwittayalai School (English Program), Bangkok, Thailand
- **Part-time Lecturer**, Rajamangala University of Technology Thanyaburi, Thailand
- **Computer System Analyst / Instructor**, TOT Academy, TOT Public Company Limited (Privatization of the Telephone Organization of Thailand), Thailand
- **Statistician and System Analyst**, Statistics and Reports Division, Office of the Director, TOT Public Company Limited (Privatization of the **Telephone Organization of Thailand**), Head Office, Thailand

### Education

- Ph.D. **Computer Science and Information Engineering**, National Central University, Taiwan (ROC)
- M.Sc. **Information Management**, Asian Institute of Technology, Thailand
- B.Sc. **Statistics**, Srinakharinwirot University, Thailand

### Selected Honors

- Fellowship for **Ph.D. Computer Science and Information Engineering**, studying at the National Central University, Taoyuan, Taiwan, awarded by the National Central University, 2011-2016
- Fellowship for **3D Online Game Development (Intensive Course)**, studying at the Tongmyong University, Pusan, Republic of Korea, awarded by the TOT Public Company Limited, 2005
- Fellowship for the **Foundation Course in Computer Science (Intensive Course)**, studying at the Infosys Leadership Institute, Mysore, Republic of India, awarded by the Ministry of Science and Technology, and the TOT Public Company Limited, 2004
- Fellowship for **M.Sc. Information Management**, studying at the Asian Institute of Technology, Thailand, awarded by the TOT Public Company Limited, 2000-2001

### Selected Professional Service

- **Publicity/Session Chair**, 2026 IEEE International Conference on Consumer Electronics (IEEE ICCE-TW 2026), July 1-3 at South Garden Hotels and Resorts in Taoyuan, Taiwan (ROC)
- **Publicity Chair**, 2025 International Workshop on LLM and Agentic AI for Personalized Learning (LAAPL 2025), Nov. 30, 2025 - The Hong Kong Polytechnic University, Hong Kong, China
- **Reviewer**, the IEEE Transactions on Image Processing (TIP)
- **Reviewer**, the IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- **Reviewer**, the IEEE Transactions on Information Forensics and Security (TIFS)
- **Reviewer**, the IEEE Access
- **Reviewer**, the IEEE International Conferences on Multimedia and Expo (ICME).
- **Reviewer**, the ACM Transaction on Information and System Security
- **Reviewer**, the ACM Transactions on Asian and Low-Resource Language Information Processing
- **Reviewer**, 2018: International Conference on Intelligent Computing, August 15-18, 2018, Wuhan, China, Journal of Supercomputing
- **Technical Program Committee Co-Chair**, U-Media 2017, the 10th International Conference on Ubi-media Computing, Pattaya, Thailand, August 1-4, 2017
- **Publicity Co-chair**, U-Media 2016, the 9th International Conference on Ubi-media Computing, Moscow, Russia, August 15-16, 2016

## Publication Statistics

Monographs: -

Journal Articles: 14

Conference Papers: 16

Book Chapters: -

Workshop Papers: -

Edited Volumes: -

Citations: Google Scholar: 368 with h-index of 10

Scopus: 257 (excluding self-citations) with h-index of 9

## Selected Publications (Full publication list:

### Journal Publication

1. **K. Wattanachote**, W. Sommoool, P. Chen, and T. K. Shih, "Efficient Video Generation using Latent Consistency Models for Text-Driven AI Music Video Synthesis," *Journal of Internet Technology*, Accepted on Dec. 30, 2025. (Q3) (in the queue to be published in 2027)
2. **K. Wattanachote**, C. Y. Lin, S. E. Hsu, and T. K. Shih, "Generative AI Shanshui animation enhancement using Perlin noise and diffusion models," *Discover Artificial Intelligence*, Springer Nature, Accepted on Dec. 23, 2025, Online Available on Jan. 16, 2026 DOI: <https://doi.org/10.1007/s44163-025-00797-6> (Q1)
3. J. Yuan, L. Xiao, **K. Wattanachote**, Q. Xu, X. Luo, and Y. Gong. "FGNet: Fixation guidance network for salient object detection," *Neural Computing and Applications*, 36(2), 569-584 (2024). ISSN: 0941-0643, DOI: <https://doi.org/10.1007/s00521-023-09028-4> (Q1)
4. J. Yuan, A. Zhu, Q. Xu, **K. Wattanachote**, and Y. Gong, "CTIF-Net: A CNN-transformer iterative fusion network for salient object detection," *IEEE Transactions on Circuits and Systems for Video Technology*, May 2024, 34(5), 3795 - 3805 (2024). ISSN: 1051-8215, DOI: <https://doi.org/10.1109/TCSVT.2023.3321190> (Q1)
5. M. Zhu, K. Zeng, G. Lin, Y. Gong, T. Hao, **K. Wattanachote**, X. Luo, "IterNet++: An improved model for retinal image segmentation by curvelet enhancing, guided filtering, offline hard-sample mining, and test-time augmenting," *IET Image Processing*, August 8, 2022. ISSN: 1751-9659, DOI: <https://doi.org/10.1049/ipr2.12580> (Q2)
6. J. Yuan, J. Wei, **K. Wattanachote**, K. Zeng, X. Luo, Q. Xu, and Y. Gong, "Attention-based bi-directional refinement network for salient object detection," *Applied Intelligence*, 52, 14349–14361 (2022). November 24, 2021. ISSN: 0924-669X, DOI: <https://doi.org/10.1007/s10489-021-03040-8> (Q2)
7. N. Lin, B. Chen, **K. Wattanachote** and S. Jiang, "A Framework for Indonesian  
1. **Grammar Error Correction**," *ACM Transactions on Asian and Low-Resource Language Information Processing*, Volume 20, Issue 4, July 2021 Article No.: 57, pp 1–12. ISSN: 2375-4699, DOI: <https://doi.org/10.1145/3440993> (Q2)
8. K. Zeng, J. Hu, Y. Gong, **K. Wattanachote**, R. Yu and X. Luo, "Vertical Retargeting for Stereoscopic Images via Stereo Seam Carving," *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, Feb 24, 2020. ISSN: 1551-6857, DOI: <https://doi.org/10.1145/3408295> (Q1)
9. G. Huang, Y. Gong, Q. Xu, **K. Wattanachote**, K. Zeng and X. Luo, "A Convolutional Attention Residual Network for Stereo Matching," *IEEE Access*, Mar 12, 2020. SCI, EI ISSN: 2169-3536, DOI: 10.1109/ACCESS.2020.2980243 (Q1)
10. Y. Xu, J. Hu, **K. Wattanachote**, K. Zeng and Y. Gong, "Sketch-Based Shape Retrieval via Best View Selection and Cross-Domain Similarity Measure," *IEEE Transaction on Multimedia (TMM)*, Jan 15, 2020. SCI, EI, ISSN: 1520-9210, DOI: 10.1109/TMM.2020.2966882 (Q1)
11. Y. Gong, S. Li, **K. Wattanachote** (corresponding author), and X. Luo, "Advanced Stereo Seam Carving by Considering Occlusions on Both Sides," *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, 15(3), pp 1-21, 2019. SCI, EI, ISSN: 1551-6857, DOI: <https://doi.org/10.1145/3321513> (Q1)
12. **K. Wattanachote** and T. K. Shih, "Automatic dynamic texture transformation based on a new motion coherence metric," *IEEE Transactions on Circuits and Systems for Video Technology*

(TCSVT), 26(10), pp 1805-1820, 2015. SCI, ISSN: 1051-8215, DOI: 10.1109/TCSVT.2015.2469552 (Q1)

13. **K. Wattanachote**, T. K. Shih, W. Chang and H. Chang, "Tamper detection of JPEG image due to seam modifications," IEEE Transactions on Information Forensics and Security (TIFS), 10(12), pp 2477-2491, 2015. SCI, ISSN: 1556-6013, DOI: 10.1109/TIFS.2015.2464776 (Q1)
14. W. G. C. W. Kumara, K. Wattanachote, B. Battulga, T. K. Shih, and W. Hwang, "A Kinect-based assessment system for smart classroom," in the International Journal of Distance Education Technologies (IJDET), 13(2), pp 34-53, 2015. ESCI, EI, DOI:10.4018/IJDET.2015040103 (Q2)

#### Conference Publication

1. J. Jetwiriyanon, Z. Feng, and **K. Wattanachote** (corresponding author), "A Novel Features Selection Model for Fire Detection and Fire Circumstances Recognition by Considering Fire Texture: MIC-RF-RFE," In K. Arai (Ed.), Intelligent Computing - Proceedings of the 2023 Computing Conference (pp. 1099-1115). (Lecture Notes in Networks and Systems; Vol. 711 LNNS). Springer Science and Business Media Deutschland GmbH. DOI: [https://doi.org/10.1007/978-3-031-37717-4\\_71](https://doi.org/10.1007/978-3-031-37717-4_71)
2. J. Hong, **K. Wattanachote** (corresponding author and co-first author), H. Wang, and K. Li, "Influence of Covid-19 Outbreak Control Policies on the China Stock Market Price Investigated by LSTM Forecasting Models," the 2023 9th International Conference on e-Society, e-Learning and e-Technologies, June 9-11, 2023, Portsmouth, UK. DOI: <https://doi.org/10.1145/3613944.3613956>
3. J. Hu, K. Zeng, **K. Wattanachote** (presenter), and Y. Gong, "Occlusion-Guided Vertical Retargeting for Stereoscopic Images based on Pixel Fusion," IEEE International Conference on Image Processing (ICIP), October 25-28, 2020, Abu Dhabi, United Arab Emirates. IEEE 2020. (ISBN: 978-1-7281-6395-6) DOI: 10.1109/ICIP40778.2020.9190855
4. Z. Lin, P. Li, W. Huang, J. Yuan, **K. Wattanachote** and Y. Gong, "Fixed Feature with Attention based on Recurrent Criss-Cross Salient Object Detection Network," 2020 8th International Conference on Digital Home (ICDH), 2020, pp. 28-33, (China, 19-20 Sept. 2020.) DOI: 10.1109/ICDH51081.2020.00013
5. G. Wang, Z. Yang, J. Chen, **K. Wattanachote**, and W. Liu, "Security Mechanism Improvement for 2D Barcodes using Error Correction with Random Segmentation," in the Proceedings of the 6th International Conference on Information Technology: IoT and Smart City, pp. 104-109, December 29-31, Hong Kong, China. ACM 2018. DOI: <https://doi.org/10.1145/3301551.3301593>
6. **K. Wattanachote**, Y. Gong, W. Liu, and Y. Wang, "Video detection for dynamic fire texture by using motion pattern recognition," in the Proceedings of the 2018 Intelligent Systems Conference, IntelliSys 2018, London, UK, September 6-7, 2018, In: Arai, K., Kapoor, S., Bhatia, R. (eds) Intelligent Systems and Applications. IntelliSys 2018. Advances in Intelligent Systems and Computing, vol 868. Springer, Cham. DOI: [https://doi.org/10.1007/978-3-030-01054-6\\_33](https://doi.org/10.1007/978-3-030-01054-6_33)
7. **K. Wattanachote**, Z. Lin, M. Jiang, L. Li, G. Wang, and W. Liu, "An investigation on motion periodic series for fire and smoke textures characteristic identification," in the 10th IEEE International Conference on Ubi-media Computing and Workshops, Pattaya, Thailand, 01-04 August 2017. DOI: 10.1109/UMEDIA.2017.8074112
8. **K. Wattanachote**, Z. Lin, M. Jiang, L. Li, G. Wang, and W. Liu, "Fire and smoke dynamic textures characterization by applying periodicity index based on motion features," in the 11th International Conference on Computer Vision Systems, Shenzhen, China, pp 507-517, 2017. DOI [https://doi.org/10.1007/978-3-319-68345-4\\_45](https://doi.org/10.1007/978-3-319-68345-4_45)
9. **K. Wattanachote**, Y. Wang, T. K. Shih, H. Hsu, and W. Liu, "Dynamic textures and covariance stationary series analysis using strategic motion coherence," in the 2017 IEEE 31st International Conference on Advanced Information Networking and Applications (AINA), 27-29 March 2017. DOI: <https://doi.org/10.1109/AINA.2017.45>
10. **K. Wattanachote**, K. Li, Y. Wang, T. K. Shih, and W. Liu, "Preliminary investigation on stationarity of dynamic smoke texture and dynamic fire texture based on motion coherent metric," in the IEEE International Conference on Machine Vision and Information Technology, pp 99-104, 2017.
11. G. Piao, X. Zhou, Q. Jin, S. Nishimura, **K. Wattanachote**, T. K. Shih, and N. Y. Yen, "Eye-tracking experiment design for extraction of viewing patterns in social media," in the 10th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC), pp 308-313, 2013. DOI: <https://doi.org/10.1109/UIC-ATC.2013.45>
12. W. Hwang, **K. Wattanachote**, T. K. Shih, S. Yeh and S. Zhan, "Preliminary investigation of interactive behaviors in distant collaborative Exergame," in 2013 International Workshop on

Smart Living and Learning (IWSLL), pp 213-222, 2013. DOI: [https://doi.org/10.1007/978-3-662-46315-4\\_22](https://doi.org/10.1007/978-3-662-46315-4_22)

13. J. C. Tsai, T. K. Shih, **K. Wattanachote**, and K.-C. Li, "Video editing using motion inpainting," in the 26th IEEE International Conference on Advanced Information Networking and Applications (AINA), Fukuoka Institute of Technology, Fukuoka, Japan, pp 649-654, 2012. DOI: <https://doi.org/10.1109/AINA.2012.22>
14. S.-Y. Peng, **K. Wattanachote**, H.-J. Lin, and K.-C. Li, "A Real-time hand gesture recognition system for daily information retrieval from Internet," in the 4th IEEE International Conference on Ubi-media Computing (U-Media), Sao Paulo, Brazil, pp 246-151, 2011. DOI: <https://doi.org/10.1109/U-MEDIA.2011.45>
15. F.-Y. Chen, C.-C. Chao, **K. Wattanachote**, K.-C. Li, "Using gesture annotation to achieve real-time communication under MSNP," in the 4th IEEE International Conference on Ubi-media Computing (U-Media), Sao Paulo, Brazil, pp 101-105, 2011. DOI: <https://doi.org/10.1109/U-MEDIA.2011.34>
16. H.-C. Chen and **K. Wattanachote**, "A role-oriented routing algorithm applied for wireless heterogeneous networks," in the 5th IEEE International Conference Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS), Seoul, Republic of Korea, pp 420-423, 2011. DOI: <https://doi.org/10.1109/IMIS.2011.145>